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| APPLICATION NO.           | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|-------------|----------------------|---------------------|------------------|
| 10/092,068                | 03/05/2002  | H. Garrett Wada      | 100/08711           | 7955             |
| 21569                     | 7590        | 11/17/2003           | EXAMINER            |                  |
| CALIPER TECHNOLOGIES CORP |             |                      | WHISENANT, ETHAN C  |                  |
| 605 FAIRCHILD DRIVE       |             |                      | ART UNIT            | PAPER NUMBER     |
| MOUNTAIN VIEW, CA 94043   |             |                      | 1634                |                  |

DATE MAILED: 11/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,068

Applicant(s)

WADA ET AL.

Examiner

Ethan Whisenant, Ph.D.

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1634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 25-27 is/are rejected.
- 7) ☒ Claim(s) 23,24 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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## NON-FINAL ACTION

1. Applicant's election in the paper(s) filed 15 AUG 03 is acknowledged. The restriction requirement mailed 04 AUG 03 has now been reconsidered, and has been deemed unnecessary by this examiner, therefore, all of the claims will be considered in total.

## SEQUENCE RULES

2. This application complies with the sequence rules and the sequences have been entered by the Scientific and Technical Information Center.

## 35 USC § 112- 2ND PARAGRAPH

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

## CLAIM REJECTIONS under 35 USC § 112- 2ND PARAGRAPH

4. Claim(s) 4-9 is/are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim(s) 4-9 is/are indefinite because the **second component** of said binding reaction is said to **comprise a non-protein molecule having a fluorescent label associated therewith**, yet dependent Claim 4 states that the second component comprises a binding fragment of a full length protein (a protein fragment). The language of Claim 4 is inconsistent with the language of Claim 1. As the examiner reads Claim 1, the second component of said binding reaction cannot have any amino acid residues, peptides, or proteins as part of its composition. Please clarify.

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**35 USC § 102**

**5.** The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that may form the basis for rejections set forth in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in --

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a)

**35 USC § 103**

**6.** The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**7.** This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligations under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

**CLAIM REJECTIONS UNDER 35 USC § 102/103**

**8.** Claim(s) 1, 4-21 is/are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oldenbourg et al. [US 5,521,705 (1996)].

**Claim 1** is drawn to a system for monitoring intracellular binding interactions comprising a reaction vessel and a detector in sensory communication with contents of the reaction vessel, the detector being configured to detect the amount of polarized fluorescence emitted from the reaction vessel.

Oldenbourg et al. teach a system comprising a reaction vessel and a detector in sensory communication with contents of the reaction vessel. Admittedly, Oldenbourg et al. do not teach using said system to monitor intracellular binding interactions exactly as claimed in Claim 1 or as claimed in Claims 4-21. However, these limitations, like those that relate to the first and second components of the binding reaction, are directed towards the intended use of the system. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). It is asserted that the system disclosed by Oldenbourg et al. is capable of performing the intended use. See, at least, for example, Column 1, beginning at line 10 - line 44.

**9.** Claim(s) 1-22, 25-27 is/are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Monks et al. [US 6,022,700 (2000)].

**Claim 1** is drawn to a system for monitoring intracellular binding interactions comprising a reaction vessel and a detector in sensory communication with contents of the reaction vessel, the detector being configured to detect the amount of polarized fluorescence emitted from the reaction vessel.

Monks et al. teach a system comprising a reaction vessel and a detector in sensory communication with contents of the reaction vessel. See for example Column 4 and the discussion of the Intelligent Imaging Innovations, Inc. workstation. Admittedly, Monks et al. do not teach using this system to monitor intracellular binding interactions exactly as claimed in Claim 1-22 and 25-27. However, these limitations, like those that relate to the first and second components of the binding reaction, are

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directed towards the intended use of the system. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). It is asserted that the system disclosed by Oldenbourg et al. is capable of performing the intended use. See, at least, for example, Column 1, beginning at line 10 - line 44.

**Claim 2** is drawn to an embodiment of Claim 1 wherein the reaction vessel comprises a well in a multiwell plate.

**Claim 3** is drawn to an embodiment of Claim 1 wherein the reaction vessel comprises a microfluidic channel.

**Claim 22** is drawn to an embodiment of Claim 1 wherein the reaction vessel comprises a window providing optical access.

**Claim 25** is drawn to an embodiment of Claim 22 wherein the reaction vessel comprises a well in a multiwell plate.

**Claim 26** is drawn to an embodiment of Claim 22 wherein the reaction vessel comprises at least a first fluidic channel.

**Claim 27** is drawn to an embodiment of Claim 26 wherein the first fluidic channel comprises at least a first microscale fluidic channel disposed within a body structure.

Monks et al. teach a biological sample preparation device for use with the workstation described above. Note that the reaction vessel of their device can be a well in a multiwell plate which is considered to be a microfluidic channel (i.e. a first microscale fluidic channel disposed within a body structure). Please note that the reaction vessels (i.e. the wells/microfluidic channels) in Monks et al. comprise a window (i.e. the opening in the top) providing optical access.

**CLAIM REJECTIONS UNDER 35 USC § 103**

**10.** Claim(s) 2-3, 22, 25-27 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Oldenbourg et al. [US 5,521,705 (1996)] as applied to Claims 1, 4-21 above and further in view of Monks et al. [US 6,022,700 (2000)].

**Claim 2** is drawn to an embodiment of Claim 1 wherein the reaction vessel comprises a well in a multiwell plate.

**Claim 3** is drawn to an embodiment of Claim 1 wherein the reaction vessel comprises a microfluidic channel.

**Claim 22** is drawn to an embodiment of Claim 1 wherein the reaction vessel comprises a window providing optical access.

**Claim 25** is drawn to an embodiment of Claim 22 wherein the reaction vessel comprises a well in a multiwell plate.

**Claim 26** is drawn to an embodiment of Claim 22 wherein the reaction vessel comprises at least a first fluidic channel.

**Claim 27** is drawn to an embodiment of Claim 26 wherein the first fluidic channel comprises at least a first microscale fluidic channel disposed within a body structure.

Oldenbourg et al. teach a system comprising a reaction vessel and a detector in sensory communication with contents of the reaction vessel. Admittedly, Oldenbourg et al. do not teach that the reaction vessel comprise a well in a multiwell plate or that the reaction vessel comprise a microfluidic channel or that the reaction vessel comprise a window providing optical access. However, Monks et al. do teach a biological sample preparation (BSP) device wherein said a reaction vessel is a well (i.e. a microfluidic channel) in a multiwell plate. In addition, the reaction vessels (i.e. the wells/microfluidic channels /microscale fluidic channels) in Monks et al. comprise a window (i.e. the opening in the top) providing optical access. Furthermore, Monks et al. teach that their device enables inexpensive and flexible high throughput sample preparation and visualization for microscopy, including high resolution, single or multi-label, 2-dimensional (2D) or 3-dimensional (3D) fluorescence microscopic observation of biological samples. Therefore, absent an unexpected result it would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to utilize the BSP of Monks et al. with the detector configured to detect the amount of polarized fluorescence emitted from reaction vessel as disclosed by Oldenbourg et al. in order to achieve the advantages disclosed by Monks et al.

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### CLAIM OBJECTIONS

**11.** Claim(s) 23-24 and 28 is /are objected to because it/they is/are dependent upon a rejected independent base claim.

### CONCLUSION

**12.** Claim(s) 1-28 is/are rejected and/or objected to for the reason(s) set forth above.


**13.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ethan Whisenant, Ph.D. whose telephone number is (703) 308-6567. The examiner can normally be reached Monday-Friday from 8:30AM -5:30PM EST or any time via voice mail. If repeated attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones, can be reached at (703) 308-1152.

The fax number for this Examiner is (703) 746-8465. Before faxing any papers please inform the examiner to avoid lost papers. Please note that the faxing of papers must conform with the Notice to Comply published in the Official Gazette, 1096 OG 30 (November 15, 1989). Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0196.

♦ Please note that the USPTO is scheduled to relocate to its new home in Alexandria, VA very soon (JAN 04'). As a result, the examiner's telephone and desktop FAX numbers will be changing. The new telephone and desktop FAX numbers for Ethan Whisenant, Ph.D. are/will be as shown below:

New Telephone number : (571)272-0754

New FAX number : (571)273-0754.



**ETHAN WHISENANT  
PRIMARY EXAMINER**